

genOway, a tool provider in transgenesis

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**Corporate mission**

**Tool provider in transgenesis:  
knock out mouse, knock-in mouse and transgenic mouse or rat**

Provide every scientist with solutions that optimise value of scientific results obtained from transgenic models. Increase predictability & reliability and reduce development time and scientific uncertainty of transgenesis.

**Service offer**  
Tailor-made knock out mouse, knock-in mouse and transgenic mouse or rat.

**Product range**  
Proprietary models currently in development

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**News** December 2003, Bayer HealthCare AG and genOway announce an agreement in the field of genetically modified mouse models

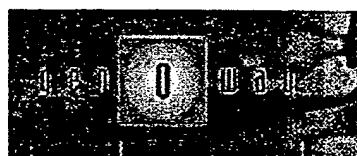
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**How to find your way for RNAi working in mice?**

**Technology releases**  
"Safe RNAiTransgenesis™"

**Reliability is our commitment**

- © genOway 2003 -  
A provider in Transgenesis: knock out mouse, knock-in mouse and transgenic mouse



genOway, a 100% provider in transgenesis

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## Service offer

genOway provides its customers with a high quality service, exemplified by the following

- Consultancy
- Fully customized service
- Flexibility
- Clear-cut guaranties
- Exclusive property of the model to the customer
- Animal facility subcontracted to a professional breeder: *Charles River Laborator*
- Complementary services

Focusing its effort on the mouse and rat models, genOway has developed a compl technological solutions to overexpress (transgenic mouse, knock-in mouse,...) ar (constitutive knock out / knockout, conditional knock out / knockout,...) genes.

- The overexpression can be achieved by random integration of the gene in the mouse and rat (transgenic mouse and rat), or by targeted insertion in a selected mouse or rat genome (knock-in).
- The deletion of the gene occurs in all tissues in constitutive knock out (knockout) conditional knock out (knockout) models, the inactivation happens only in selected a certain time during the animal development.

Inactivation (knock out / knockout) of genes and targeted overexpression (knock-important strategies for animal models. These strategies are only available in the mouse genOway is currently developing a rat knock out / knock-in program .

A provider in Transgenesis: knock out mouse, knock-in mouse .


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## Service offer

### Ge Constitutive knock

Gene deletion is based on the inactivation at the genetic level of a gene of interest. This can be achieved through random mutation (gene trap approach, chemical mutagen targeted insertion (homologous recombination). genOway has developed an offer based on a homologous recombination vector and embryonic stem cells. Homologous recombination provides the customer with the best adapted model and the lowest risk. All our laboratories including those that have heavily invested in random mutagenesis offer solutions.

The constitutive "knock out" (knockout) approach has the following characteristics.

Advantages	Drawbacks
Total inactivation of the gene in any cell	Phenotypes can be complex since all are affected

The constitutive "knock out" (knockout) model provides a broad overview of gene function.

The offer genOway has developed can include the following steps, but the service is flexible (limited to part of this offer and/or adapted to customer requirements) :

Step 1 :	Subcloning and characterization of the locus of interest
Step 2 :	Knock out / knockout vector construction (targeting vector)
Step 3 :	Homologous recombination in Embryonic Stem cells (ES cell)
Step 4 :	Blastocyst injection and chimera generation
Step 5 :	Breeding of F1 and F2 generation

The development of the first cloned rat reported by genOway in Science (Qi et al. 2000) was a way for the development of knock out rat models and allows new opportunities for research focused on rat models. This technology is not yet available as a service. On request, partnerships may be established.

For more information, please e-mail us at [info@genoway.com](mailto:info@genoway.com)  
or visit our [information request page](#)

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